

Appl. No. 10/055,492
Amdt. dated August 17, 2004
Reply to Office Action of May 17, 2004

Docket No. A01125

REMARKS/ARGUMENTS

Claims 1-5 and 11-12 remain in this application.

Claims 6-10 are withdrawn

Rejection of claims 1-5 and 11-12 under 35 USC 112, first paragraph

In the above-identified Office Action, the Examiner rejected claims 1-5 and 11-12 under 35 USC 112, first paragraph. The Examiner stated, "No iron clad support can be found for the limitation 'wherein said emulsion polymer is made without the use of chain transfer agents.'" The Examiner further stated that the appearance of n-dodecyl mercaptan, a known chain transfer agent, in the Glossary of the present specification (which precedes the Examples) "would necessarily infer that a chain-transfer agent was used in forming the Emulsion polymer per Run 1." The Examiner concludes that the limitation (recited in present claims 1 and 4) "wherein said emulsion polymer is made without the use of chain transfer agents" constitutes new matter.

Applicants submit that the limitation "wherein said emulsion polymer is made without the use of chain transfer agents" does not introduce new matter into the present application, as discussed in further detail herein below.

The emulsion polymer described in Example 1 of the present specification was made without the use of chain transfer agent. The procedure set forth in Example 1 is clear and complete; all the ingredients that were used in making the polymer described in Example 1 are listed in the description recited in Example 1. A person of ordinary skill in the art, reading the procedure set forth in Example 1, would know that no chain transfer agent was used. The declaration by Kathleen Koziski, attached to this communication, verifies that the list of ingredients disclosed in Example 1 is indeed complete, and that no chain transfer agent was used in performing the procedure of Example 1.

Applicants note that the Glossary is specifically described in the present invention as providing the "meanings" of various "abbreviations and terms." Applicants submit that merely defining the meaning of "n-DDM" does not state or imply that n-dodecyl

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mercaptan (or any other chain transfer agent) was used in the procedures described in the Examples.

In sum, Applicants respectfully submit that the plain meaning of the description given in Example 1, verified by the attached declaration, shows that Applicants did prepare embodiments of the present invention using an emulsion polymer made without chain transfer agent. Therefore, Applicants submit that they were indeed in possession of the invention as recited in present claims 1 and 4 at the time the present application was filed. Consequently, Applicants submit that present claims 1 and 4 do not contain new matter. Further, Applicants submit that present dependent claims 2, 3, 5, 11, and 12 also do not contain new matter, for the same reasons set forth herein above regarding present claims 1 and 4.

Claims 1-5: rejection under 35 USC §102(b) over Rokowski

In the above-identified Office Action, the Examiner rejected claims 1-5 under 35 USC §102(b) as being anticipated by US 5,534,310 (Rokowski). The Examiner refers to the passage of Rokowski at col. 8, lines 2-5, and the Examiner concludes that Rokowski discloses that chain transfer agent is "an optional component" of Rokowski's invention. Also, the Examiner refers to Rokowski's Latex polymers I and IV.

Applicants respectfully assert that the present invention, as recited in amended independent claims 1 and 4, is novel over Rokowski. In general, Applicants maintain their arguments, presented in the Amendment of February 9, 2004, regarding Rokowski. In summary, Rokowski teaches that low molecular weight is critical to his invention and that low molecular weight "is achieved" (col. 8, line 43) by the use of chain transfer agents.

The specific passage of Rokowski cited by the Examiner (col. 8, lines 2-5) is the following:

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"A chain transfer agent may be used at this time or, if desired, at a later stage described below for regulating the peak molecular weight of the latex polymer."

Applicants submit that the clear meaning of this passage is that chain transfer agent is to be used either "at this time" or else "at a later stage." Applicants assert that Rokowski is teaching alternative processes in which chain transfer agent is added at different times; he is not teaching alternative processes with and without chain transfer agent. By "at this time," Rokowski clearly means the procedure described immediately before the above-quoted passage (col. 7, line 62 through col. 8, line 2). By "later stage described below," Rokowski clearly means the alternative procedures for polymerization disclosed from col. 8, line 66 to col. 9, line 14. Applicants note the disclosure made by Rokowski at the conclusion of the description of these alternative procedures: "The chain transfer agent may be introduced at any one of the stages described above."

Applicants respectfully submit that Rokowski's disclosure, especially when taken as a whole, teaches that chain transfer agents are necessary. Rokowski emphasizes the importance of low molecular weight, and he teaches that the way to achieve low molecular weight is by the use of chain transfer agents. Where Rokowski provides alternatives, it is in the alternative "stages" during which chain transfer agent may be added. Applicants submit that the above-quoted passages of Rokowski do not disclose compositions made without the use of chain transfer agents.

Rokowski describes Latex Polymers I and IV (Rokowski's Example 1 and Example 4). These polymers are made without chain transfer agent, but they both are disclosed to have acid value of 19. In contrast, the emulsion polymers recited in present claims 1 and 4 have acid value of 30 to 100. Thus, Latex Polymers I and IV of Rokowski do not have all the features of the emulsion polymers recited in present independent claims 1 and 4.

Therefore, Applicants respectfully submit that present independent claims 1 and 4 are novel over Rokowski because the compositions recited in the present independent

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claims 1 and 4 use emulsion polymers that are made without the use of chain transfer agents and that have acid value of 30 to 100. Similarly, present claims 2, 3, 5, 11, and 12 are also novel over Rokowski because they are dependent on present claims 1 and 4.

Claims 1-5: rejection under 35 USC §103(a) over Rokowski

In the above-identified Office Action, the Examiner rejected claims 1-5 under 35 USC §103(a) as being obvious in view of US 5,534,310 (Rokowski). The Examiner refers to the principle that "omission of an element and its function is obvious if the function of the element is not desired." The Examiner appears to be arguing that the function of the chain transfer agent (i.e., keeping polymer molecular weight low) is not a desired function in coatings that adhere to friable surfaces. The Examiner concludes that "it would have been obvious to the skilled artisan to omit the chain transfer agent along with its function."

Applicants respectfully submit that the correct criterion for whether the function of the chain transfer agent is "desired" or not is the teachings of Rokowski and not the teachings of the present specification. Rokowski defines his invention as using polymer with peak molecular weight of 10,000 to 200,000. Rokowski teaches that the presence of higher molecular weight polymers is undesirable and must be limited (col. 2, lines 60-63). Therefore, the disclosure of Rokowski clearly teaches that the function of keeping the polymer molecular weight low is not only desired but is critical in making coating compositions with good adhesion to friable surfaces. Thus, a person of ordinary skill in the art would conclude that the function of keeping polymer molecular weight low is a desired function when making coating compositions with good adhesion to friable surfaces.

Rokowski teaches specifically that polymers made without chain transfer agent (which he calls "conventional" polymers) lead to coating compositions with poor adhesion to friable surfaces. Rokowski discloses Latex Polymers I and IV, which are made without chain transfer agent. Rokowski discloses that coating compositions made

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with these polymers have poor adhesion, for example, to weathered chalky alkyd coated surfaces. Rokowski reports such results for the coating composition using Latex Polymer I in "Column C" at col. 15, line 39, and Rokowski reports such results for the coating composition using Latex Polymer IV in "Column B" at col. 16, line 47.

In sum, Rokowski teaches that limiting the polymer molecular weight (i.e., keeping the polymer molecular weight low) is necessary for making coating compositions with good adhesion to friable surfaces. Rokowski reports on some coating compositions that use polymers made without chain transfer agents, and he shows that such coatings have poor adhesion to friable surfaces.

Applicants submit that the teachings of Rokowski would lead a person of ordinary skill in the art to conclude that limiting the polymer molecular weight is necessary to create a coating composition with good adhesion to friable surfaces. Consequently, Applicants submit that it would not be obvious to a person of ordinary skill in the art to make a coating with good adhesion to friable surfaces by using polymer made with no chain transfer agent, because the function of the chain transfer agent (limiting the molecular weight of the polymer) is taught by Rokowski as necessary to making coatings with good adhesion to friable surfaces.

In contrast, the present specification has shown that coating compositions that have polymer made without the use of chain transfer agents have good adhesion to friable surfaces when the coating compositions also have other features, such as, for example, polymer with acid value of 30 to 100. Rokowski does not teach or suggest the combination of features recited in present claims 1 and 4, such as, for example, the use of polymer made without chain transfer agents and polymer with acid value of 30 to 100. Consequently, Applicants submit that the present invention, as recited in present independent claims 1 and 4, is not obvious in view of Rokowski.

Additionally, Applicants submit that present claims 2, 3, and 5, because they are dependent on present claims 1 and 4, are also not obvious in view of Rokowski.

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Rejection of Claims 11 and 12 under 35 USC §103(a) over Rokowski

In the above-identified Office Action, the Examiner rejected claims 1-5 under 35 USC §103(a) as being obvious in view of US 5,534,310 (Rokowski). The Examiner states that compositions taught by Rokowski differ from those recited in present claims 11 and 12 "as per the content of surfactant exemplified [by Rokowski] being slightly outside the scope of the claimed invention." The Examiner refers to the range of surfactant concentration recited in present claims 11 and 12 and states, "Criticality for such, clearly commensurate in scope with the claims, not having been demonstrated in the record."

Because present claims 11 and 12 are dependent on amended independent claims 1 and 4, Applicants respectfully submit that they are therefore non-obvious in view of Rokowski. Additionally, Applicants assert that the feature regarding the amount of nonionic surfactant recited in present claims 11 and 12 provides an additional reason why present claims 11 and 12 are non-obvious in view of Rokowski.

First, as discussed herein above, Applicants assert that the compositions recited in present claims 11 and 12 differ from those disclosed by Rokowski in several ways in addition to the amount of nonionic surfactant, including, for example, polymer made with lack of chain transfer agent and polymer with acid number of 30 to 100. Therefore, Applicants submit that, because the compositions of present claims 11 and 12 differ from those of Rokowski in many ways, the criticality of the range of surfactants is not necessary to establish that the subject matter of present claims 11 and 12 is not obvious in view of Rokowski. Thus, Applicants submit that the range of surfactant concentrations recited in present claims 11 and 12 provide an additional difference from the compositions disclosed by Rokowski, and therefore the present invention, as recited in present claims 11 and 12 is non-obvious in view of Rokowski for an additional reason.

Conclusion

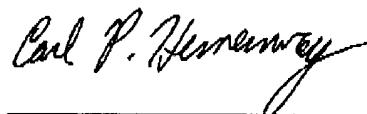
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In view of the foregoing amendments and arguments, Applicants respectfully request the Examiner to reexamine the claimed subject matter, to withdraw the rejections of the claimed subject matter, and to allow claims 1-5 and 11-12 at this time. If, however, there remain any open issues which the Examiner believes can be resolved by a telephone call, the Examiner is cordially invited to contact the undersigned agent.

No fees are believed to be due with the submission of this Amendment after Final; however, if any fees, including petition or extension fees, are due, the Commissioner is hereby authorized to charge them, as well as to credit any overpayments, to Deposit Account No. 18-1850.

Respectfully Submitted,



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